

## General

### Title

Pediatric primary care: mean score on the "Coordination" subscale of the Parent's Perceptions of Primary Care (P3C) instrument.

### Source(s)

Seid M, Varni JW, Bermudez LO, Zivkovic M, Far MD, Nelson M, Kurtin PS. Parents' Perceptions of Primary Care: measuring parents' experiences of pediatric primary care quality. *Pediatrics*. 2001 Aug;108(2):264-70. [PubMed](#)

## Measure Domain

### Primary Measure Domain

Clinical Quality Measures: Patient Experience

### Secondary Measure Domain

Does not apply to this measure

## Brief Abstract

### Description

This measure is used to assess the parent's report of the physician's knowledge of other visits and visits to specialists, as well as the follow-up of problems through subsequent visits or phone calls, based on the parent's responses ("0 = never," "1 = sometimes," "2 = often," "3 = almost always," "4 = always," "NA = Not applicable") to the "Coordination" items in the Parent's Perceptions of Primary Care (P3C) measure instrument:

When necessary, can the doctor arrange for other health care for your child?

When necessary, do you feel that the doctor follows up on visits to other health care providers?

Do you feel the doctor communicates with other health providers about your child, when necessary?

When necessary, do the doctor and the school work together for your child's health?

## Rationale

High quality pediatric primary care is a cornerstone of efforts to improve health outcomes, control health care spending, and improve access to care. To improve the quality of pediatric primary care, a reliable and valid measure must exist. The ideal instrument is one that is brief, practical, reliable, and valid. Given the current high rate of uninsured children and children without a regular source of care, such an instrument must also be applicable regardless of insurance status and health plan membership or the presence of a regular provider of care.

The Parent's Perceptions of Primary Care (P3C) measure is based on the Institute of Medicine (IOM) definition of primary care, which is similar to the American Academy of Pediatrics concept of a medical home. With the use of this definition as a criterion, the P3C was designed to measure 6 components of care (longitudinal continuity, access, contextual knowledge, communication, comprehensiveness, and coordination) that, when present, constitute high-quality primary care experiences. High scores reflect care conforming to this a priori definition.

The P3C measures perceptions of quality based on parents' reports of their experiences, rather than ratings of satisfaction with those experiences. The P3C was designed to measure parents' perceptions of experiences in receiving primary care, rather than the quality of a particular provider of primary care. This was done so that the care received by children without a regular provider also could be described in relation to the IOM definition of quality primary care. This is important, given the large proportions of uninsured children and children without a regular source of care who receive primary health care at emergency departments or community clinics, where they might not see a consistent provider.

Although some have argued that patients/parents cannot report on the coordination of care, it could be argued that the best coordination is apparent to the patient or parent—that part of coordinating care involves communicating the process and outcomes of that coordination to the parent.

## Evidence for Rationale

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## Primary Health Components

Pediatric primary care; patient experience; parent perception; coordination of care

## Denominator Description

Children whose parent or guardian answered the "Coordination" items on the Parent's Perceptions of Primary Care (P3C) measure instrument

## Numerator Description

The number of responses ("0 = never," "1 = sometimes," "2 = often," "3 = almost always," "4 = always," "NA = Not applicable") to the "Coordination" items in the Parent's Perceptions of Primary Care (P3C) measure instrument (see the related "Numerator Inclusions/Exclusions" field)

## Evidence Supporting the Measure

### Type of Evidence Supporting the Criterion of Quality for the Measure

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

### Additional Information Supporting Need for the Measure

- A need exists for an instrument that is at once a brief, practical, reliable, and valid measure of pediatric primary care that can be used irrespective of insurance status or the presence of an established clinician-patient relationship. Although others have posited that an established clinician-patient relationship is necessary for the existence of primary care, and have therefore restricted measurement of primary care to those patients with such a relationship, the fact remains that many children, both insured and uninsured, lack a regular site of care or a regular provider of care. It behooves researchers, clinicians, and policy makers to develop and use measures that encompass the experiences of these children, as well.
- The ability to measure the quality of children's health care effectively is challenging because of a

number of factors, including the child's dependence on caregivers, changing development, and demographics. Although some proxy measures for quality that do not depend on parents exist, such as immunization rates and frequency of screening for lead and anemia, these measures may reflect the quality of systems rather than providers.

- Hospital-based primary care clinics, where residents are often the primary care providers, provide care to ~21% of the socioeconomically disadvantaged families in the United States, as well as to children with chronic health care needs. With the structural challenges of resident training, there may be concerns about a lower quality of care received by patients.
- Access to primary care is associated with better outcomes for children with asthma, in all likelihood because the hallmarks of high-quality primary care, namely, continuity, comprehensiveness, communication, contextual knowledge, coordination, and accessibility, are key to good asthma care. However, it is well known that certain groups of children with asthma, those defined by sociodemographic and access indicators such as minority race/ethnicity, low parental education, poverty, limited English language ability, lack of insurance, no usual source of care, and unmet health care needs, are less likely to receive high-quality primary care and are more vulnerable to poor health outcomes.
- Children of farm workers, especially migrant farm workers, are particularly vulnerable to poor health outcomes. These children may live in families that are highly transient and may face substandard living conditions. They are likely to experience high rates of physical, mental, and oral health conditions. And children of Latino farm workers face multiple financial, cultural, and linguistic barriers to quality health care. Given the special vulnerability of this population, there is a pressing need for a brief, feasible, reliable, and valid measure of primary care characteristics for these children.

## Evidence for Additional Information Supporting Need for the Measure

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## Extent of Measure Testing

### Pilot Testing

To ensure content validity and that the Parent's Perceptions of Primary Care (P3C) measure encompasses all appropriate domains of interest, 12 groups of 3 parents each were interviewed in small-group settings at an elementary school and parents completed pilot versions of the measure. To ensure item clarity and to identify and modify unclear items, the modified instrument was then piloted with 15 additional parents at an elementary school and a preschool using cognitive interviewing methodology.

### Feasibility, Reliability and Validity Testing

As part of a larger study to validate a measure of quality of care for vulnerable children, the P3C was administered to 3,371 parents of children in 228 classes, from kindergarten through the sixth grade, at 18 elementary schools within a large, urban school district. The percentage of missing values for the overall

sample was 1.88%, indicating acceptable feasibility. Range of measurement, assessed via floor and ceiling effects, was moderate to good. Cronbach's coefficient alpha, an indicator of scale internal consistency reliability, was 0.95 for the P3C total scale. Factor analysis supported the subscale structure, and P3C scores were higher for children with health insurance, whose parents completed the survey in English, and who had a regular physician. P3C scores were positively related to parent reports of the child's health-related quality of life. These data imply that the P3C is a feasible, reliable, and valid measure of primary care characteristics, suitable for use in large, diverse community samples. Additional field testing is planned to address test-retest reliability.

An additional study suggests that the P3C is a feasible, reliable and valid measure of primary care characteristics for an underserved population: children of Latino farm workers.

## Evidence for Extent of Measure Testing

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## State of Use of the Measure

### State of Use

Current routine use

### Current Use

not defined yet

## Application of the Measure in its Current Use

### Measurement Setting

Ambulatory/Office-based Care

Patient-centered Medical Homes

### Professionals Involved in Delivery of Health Services

not defined yet

## Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

## Statement of Acceptable Minimum Sample Size

Unspecified

## Target Population Age

Children

## Target Population Gender

Either male or female

## National Strategy for Quality Improvement in Health Care

### National Quality Strategy Aim

Better Care

### National Quality Strategy Priority

Health and Well-being of Communities

Person- and Family-centered Care

## Institute of Medicine (IOM) National Health Care Quality Report Categories

### IOM Care Need

Getting Better

Living with Illness

Staying Healthy

### IOM Domain

Patient-centeredness

## Data Collection for the Measure

### Case Finding Period



Unspecified

## Denominator Sampling Frame

Patients associated with provider

## Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

## Denominator Time Window

not defined yet

## Denominator Inclusions/Exclusions

Inclusions

Children whose parent or guardian answered the "Coordination" items on the Parent's Perceptions of Primary Care (P3C) measure instrument

Exclusions

Unspecified

## Exclusions/Exceptions

not defined yet

## Numerator Inclusions/Exclusions

Inclusions

The number of responses ("0 = never," "1 = sometimes," "2 = often," "3 = almost always," "4 = always," "NA = Not applicable") to the "Coordination" items in the Parent's Perceptions of Primary Care (P3C) measure instrument

Note: These items are transformed to a 0 to 100 scale, with 100 being the best, as follows: 0 = 0, 1 = 25, 2 = 50, 3 = 75, 4 = 100. The "Not applicable" responses are scored as a user-missing value. Computing the mean of the nonmissing values forms the subscale score.

Exclusions

Unspecified

## Numerator Search Strategy

Fixed time period or point in time

## Data Source

Patient/Individual survey

## Type of Health State

Does not apply to this measure

## Instruments Used and/or Associated with the Measure

Parent's Perceptions of Primary Care (P3C) instrument

## Computation of the Measure

### Measure Specifies Disaggregation

Does not apply to this measure

### Scoring

Composite/Scale

Mean/Median

### Interpretation of Score

Desired value is a higher score

### Allowance for Patient or Population Factors

not defined yet

### Standard of Comparison

not defined yet

## Identifying Information

### Original Title

Parent's Perceptions of Primary Care (P3C): coordination.

### Measure Collection Name

Parent's Perceptions of Primary Care (P3C) Instrument

### Submitter

Seid, Michael, PhD, Cincinnati Children's Hospital Medical Center - None

### Developer

## Funding Source(s)

This research was supported by the Agency for Healthcare Research and Quality (AHRQ) (Grant R01 HS10317) and the Substance Abuse and Mental Health Services Administration (SAMHSA).

## Composition of the Group that Developed the Measure

Michael Seid, PhD; James W. Varni, PhD; Laura Olson Bermudez, PhD; Mirjana Zivkovic, MD, PhD; Maryam Davodi Far, PhD; Melissa Nelson, MPH; and Paul S. Kurtin, MD

## Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

## Adaptation

This measure was not adapted from another source.

## Date of Most Current Version in NQMC

2001 Aug

## Measure Maintenance

Unspecified

## Date of Next Anticipated Revision

Unspecified

## Measure Status

This is the current release of the measure.

The measure developer reaffirmed the currency of this measure in December 2015.

## Measure Availability

Source available on the [American Academy of Pediatrics \(AAP\) Web site](#) .

For more information, please contact Michael Seid, PhD, at the Center for Child Health Outcomes, 3020 Children's Way, MC 5053, San Diego, CA 92123. E-mail: [mseid@chsd.org](mailto:mseid@chsd.org).

## NQMC Status

This NQMC summary was completed by ECRI Institute on October 12, 2012. The information was not verified by the measure developer.

The information was reaffirmed by the measure developer on December 17, 2015.

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## Production

### Source(s)

Seid M, Varni JW, Bermudez LO, Zivkovic M, Far MD, Nelson M, Kurtin PS. Parents' Perceptions of Primary Care: measuring parents' experiences of pediatric primary care quality. *Pediatrics*. 2001 Aug;108(2):264-70. [PubMed](#)

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